Abstract of the Invention

This invention relates to a catalyst and process for simultaneous preparation of chloroform and chlorinated paraffins from carbon tetrachloride and paraffins. The catalyst is a liquid preparation of a complex of copper compound and nitrogen-containing organic compound in a liquid phase base. In embodiments of the invention, the catalyst includes 1) a copper(I) or copper(II) compound; 2) a tertiary ammonium salt, amino acid, amide, alkanolamine, urea, or derivative thereof; and 3) an alcohol, hydroxyl-containing organic compound, or water. The process for the preparation of chloroform and chlorinated paraffins according to the present invention includes hydrogenating carbon tetrachloride by one or more n-paraffins in a liquid phase at 150-170°C in the presence of the catalyst. The hydrogenating is carried out at a molar ratio of carbon tetrachloride to paraffin equal to at least approximately 1:1 with the catalyst present in an amount equal to approximately 1-10 % by volume.